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PATENT COOPERATION TREATY



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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P08101WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/002431	International filing date (day/month/year) 18 July 2003 (18.07.2003)	Priority date (day/month/year) 19 July 2002 (19.07.2002)
International Patent Classification (IPC) or national classification and IPC H04M 1/02		
Applicant SIEMENS AKTIENGESELLSCHAFT		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 7 sheets, including this cover sheet.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 30 December 2003 (30.12.2003)	Date of completion of this report 08 October 2004 (08.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2003/002431

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages _____ 1-16 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____ 1-15 _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the drawings:
 pages _____ 1/5-5/5 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/02431

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-15	NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents:

D1: WO-A-9708926

D2: US-A-5386084

D3: EP-A-0180383

D4: US-A-5526526

2. Document D1 (see in particular page 1, line 14; page 3, lines 3-6, 13-14 and 21) discloses, in accordance with the features of claim 1: a receptacle (page 3, line 3: "the housing"), in particular a housing for a mobile telephone handset (page 3, line 3: "the housing of the wireless device"; page 1, line 14: "in wireless devices such as mobile telephone or cordless telephone devices"), with a first receptacle base body (page 3, line 4: "a lower shell") constructed from a first base material comprising a first edge (page 3, line 5: "open sides") and a second receptacle base body (page 3, line 4: "...consisting of an upper shell") constructed from a second base material comprising a second edge (page 3, line 5: "open sides"), which abut along the first edge and the second edge (page 3, lines 4-6: "which are arranged one on top of the other with their open sides facing each other"), and with a seal made from

a sealing material (page 3, line 13: "the seal"), said seal being permanently connected to the first base body (implicit from page 3, lines 13-14: "the lower shell and the seal are manufactured in a two-component injection molding process"), the sealing material consisting of an elastically deformable material (page 3, line 21: "the seal, consisting of conductive silicone rubber").

The subject matter of claim 1 differs from the disclosure of document D1 merely in that the seal is fitted so that it seals on the second edge.

The technical effect of this difference represents the solution to the problem of closing a receptacle so that it is sealed.

In order to solve this problem, a person skilled in the art would consult the teaching of document D2, which discloses a receptacle with a seal between the two receptacle base bodies (column 1, line 64 to column 2, line 1: "an enclosure having a top and a bottom, having respective lower and upper edges which are the same shape, and an elastomeric cover which fits over the top and wraps around the lower edge thereof like a glove so as to seal the joint between the lower edge of the top and the upper edge of the bottom"). A person skilled in the art would arrive at the solution to which claim 1 refers by the obvious combination of features of the two documents without thereby exercising inventive skill.

Consequently, the subject matter of claim 1 does not involve an inventive step (PCT Article 33(3)).

3. Document D1 (see in particular page 1, lines 6-9 and 14 and page 1, line 33 to page 2, line 2) discloses, in accordance with the features of claim 13: method for producing a housing component for a mobile telephone handset (page 1, lines 6-9: "a method for producing a housing component ... for a wireless device; page 1, line 14: "in wireless devices such as mobile telephone or cordless telephone devices"), with an elastic seal (page 1, line 37 to line 2, line 1: "a seal consisting of an electrically conductive elastic plastic") by a two-color injection molding process (page 1, lines 33-34: "housing component ... by means of a two-color injection molding process"), a hard component being injected into a solid mold in a first production step (page 1, lines 35-36: "in one processing step the housing component of conductive plastic is injected"), the hard component being molded by a first countermold that can be moved in the demolding direction (implicit in the injection molding process; see also D3, page 10, paragraph 2 to page 11, paragraph 1) and in a second production step a soft component, which forms the seal, being injected onto the hard component (page 1, line 36 to page 2, line 2: "and a seal consisting of an electrically conductive elastic plastic being applied on the ..." and molded by a second countermold (implicit in the injection molding process).

The subject matter of independent claim 13 differs from the disclosure of D1 merely in that the second countermold is moved in the same demolding direction as the first countermold in order to demold the component. A person skilled in the art considers the direction in which a demolding mold is moved to be merely one option for removing the countermold.

Consequently, the subject matter of claim 13 does not involve an inventive step (PCT Article 33(3)).

4. None of dependent claims 2-12 and 14-15 appears to contain any additional features that, in combination with the features of any claim to which they refer back, could lead to subject matter involving an inventive step, since these features either are known in principle directly from the disclosure of document D1 or D2 or they represent minor modifications based on the general expert knowledge of a person skilled in the field of housing manufacture by injection molding methods.
 - 4.1. The additional features of dependent claims 2 and 3 refer, respectively, to the fact that the seal is arranged on an outer side of the first base body and that it protrudes over the first base body. Said features are disclosed in document D2 (column 1, line 66 to column 2, line 1: "an elastomeric cover which fits over the top and wraps around the lower edge thereof like a glove so as to seal the joint between the lower edge of the top and the upper edge of the bottom"). A person skilled in the art would consider the fact that the seal protrudes in the direction of the second base body to be an obvious embodiment possibility for the receptacle.
 - 4.2. The additional feature of dependent claim 4, according to which the labyrinth seal is formed from the first and second receptacle base bodies and the seal, represents to a person skilled in the art an obvious possibility for the embodiment of a housing (see also D4, figures 5a or 5b).

- 4.3. The additional features of dependent claims 5 and 6 refer, respectively, to the fact that the edge on which the seal is applied consists of a more rigid material than the seal and that the receptacle base body is made of a rigid plastic and the seal is made of a softer plastic. A person skilled in the art generally knows that a seal is made of a softer material than the housing that is to be sealed (D1, abstract; "the housing consists of ... plastic ... a seal consisting of a conductive silicone layer").
- 4.4. The additional features of dependent claims 7, 8, 9 and 10 refer to the fact that the receptacle base body is produced with the seal by the two-color injection molding process (D1, abstract: "two-color injection molding process"), that the seal consists of a thermoplastic elastomer and the material of the first receptacle base body consists of a thermoplast (D1, page 3, lines 25-26: "a ... thermoplast can ... be selected as the first component for the lower shell") and that the sealing material has a Shore hardness of between 50 and 60. A person skilled in the art would consider these features to be merely a choice of embodiment possibilities.
- 4.5. The additional features of dependent claims 11 and 12 refer to the fact that the receptacle is intended to receive electric, electronic or mechanical components (D1 or D2, abstract), that the receptacle has a third receptacle base body (D2, column 4, line 29: "the battery access door"), which serves to accept a replaceable electric power source (implicit in the phrase "access to the battery"), said third receptacle base body abutting either the first or the second receptacle base body (figure 3) and being sealed off

against it by a further elastic seal (D2, figure 5; column 4, line 30: "... surrounded by a shaped elastomeric battery holder and a seal 64"), said further seal being applied either to the third receptacle base body or to the second or first receptacle base body (figures 5 and 2). These features are disclosed in document D2. A person skilled in the art is familiar with receptacles consisting of two base bodies with a seal for storing food (e.g. preserving jars or Tupperware containers, bottles with lids, etc.).

- 4.6. A person skilled in the art would regard the additional features of claims 14 and 15 as merely design options, namely the use of a rotary table machine on which two housing components are processed by rotation - one for applying the hard component and one for applying the soft component - and the application of the soft component while the hard component is still soft.

Therefore, the subject matter of claims 2-12 and 14-15 does not involve an inventive step (PCT Article 33(3)).

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